

Feasibility of a Surveillance System for Carbon Monoxide Poisoning



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Why Carbon Monoxide Poisoning?

- Annual US Morbidity and Mortality
 - Approx 10,000 seek medical care
 - Approx 500 deaths
- Little work to characterize epidemiology
- Responsive to PH messages
- Ideally suited for existing NEDDS/HAN system

Background: CO Surveillance in Maine



January 98 Ice Storm

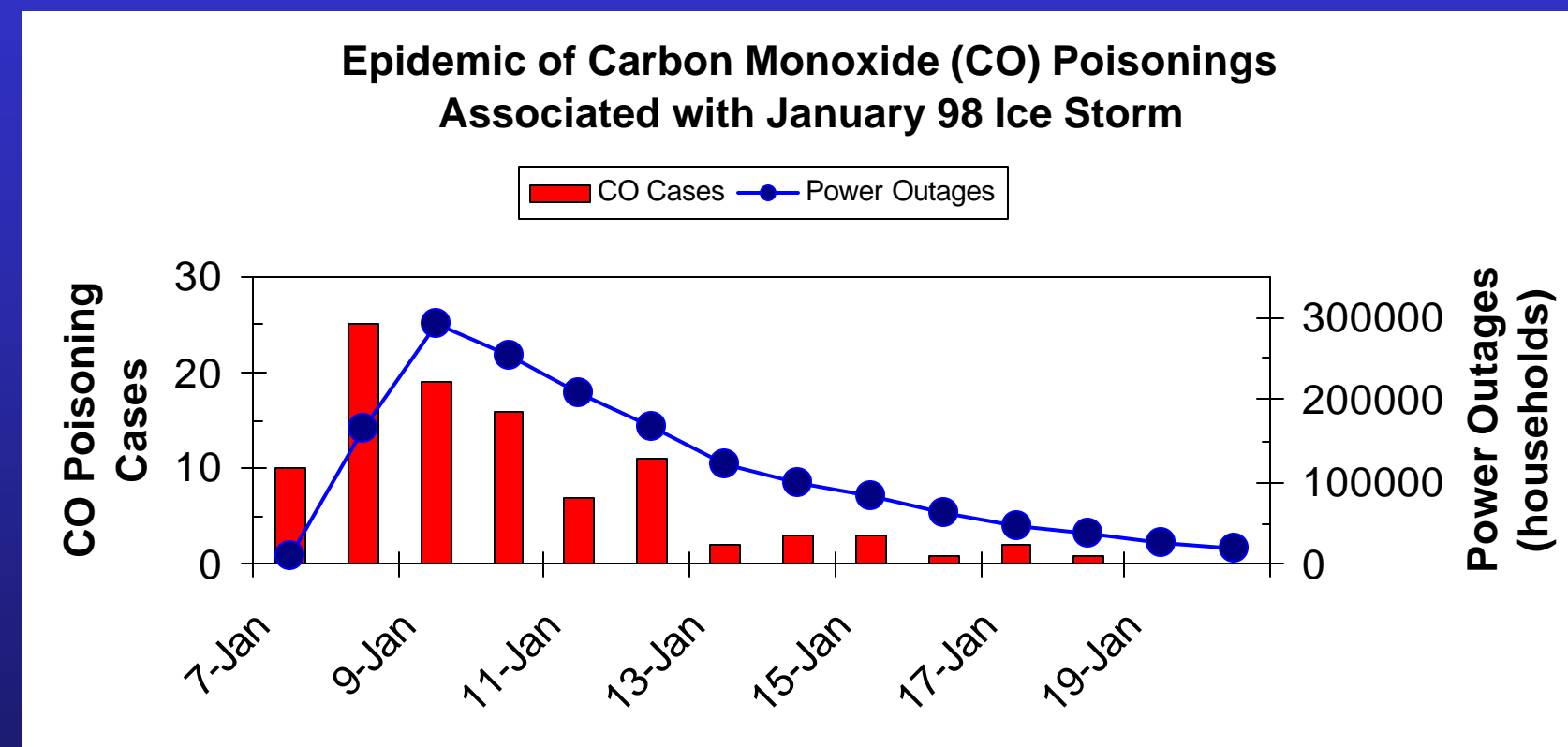
Portland Press Herald



Alternative heat and power sources

Portland Press Herald

Background: CO Surveillance in Maine



Daley, RW, Smith A et. al. An outbreak of carbon monoxide poisoning after a major ice storm in Maine. J Emerg. Med. 2000;18; 87-93

Background: CO Surveillance in Maine
Sources of CO Poisoning After the Ice Storm

Principle Source	Number of Incidents	Number of Cases
Generator	27	74
Kerosene Heater	4	5
Generator-propane Heater	2	9
Charcoal Grill	2	3
Portable Gas Stove	1	2

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Background: CO Surveillance in Maine

- Active case finding and validation in 4 hospitals E.D.s
 - Chart reviews and evaluation
- Case control study of households using specific CO sources.
 - Alternative energy source use and placement

Surveillance Goals

1. Monitor and describe the the occurrence
2. Develop a heighten/awareness alert/early warning systems for prevention and detection
 - IPHIS/NEDDS/HAN
3. Detect exposure events
 - Environmental/occupational
4. Evaluate prevention messages/efforts

Status

Plan for Evaluating prevention message:

In progress:

- 2004 Maine Behavioral Risk Factor Surveillance System (BRFSS)
- Developed 9 questions
 - 6 on generator use/ placement
 - 3 on CO detector use
- Expect data Feb. 2005

Status

Plan for Feasibility Assessment:

Assess practical feasibility

- Data: availability; quality; timeliness
- Resources required
- Statutory/legislative authority
- Validation study for ED CO poisoning dx

Next Steps

Implement Plan

- Obtaining and analyze outcome data
 - Person place time
 - Data validity
- Investigating obtaining power outage data
- Feasibility of a NEDSS/PAMS

Discussion questions

- Is CO poisoning a priority for EPHT?
- How important is the goal “Detect exposure events”
- Other potential data sources